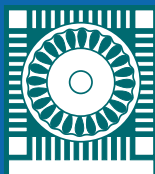


# 2003 Water Quality Report



CITY OF  
**HAYWARD**  
HEART OF THE BAY

The City of Hayward is pleased to present the 2003 Water Quality Report (Consumer Confidence Report) to let customers know where Hayward drinking water comes from, how it is treated, the results of water quality monitoring, and other important information about water quality.

The City of Hayward purchases all of its water from the San Francisco Public Utilities Commission (SFPUC). The results of water quality monitoring by the SFPUC and City of Hayward confirm that the water delivered to Hayward customers in 2003 met or exceeded all state and federal standards. Important information about the contaminants that were detected in the drinking water in 2003 can be found in this report.

## **WHAT IS THE SOURCE OF OUR DRINKING WATER?**

SFPUC is the sole supplier of water to Hayward. The Hetch Hetchy watershed, an area located in Yosemite National Park, provides the majority of water delivered by SFPUC to Hayward. Spring snow melt runs down the Tuolumne River and fills Hetch Hetchy.

SFPUC provides a small amount of water (about 15%) from the Alameda watershed, which is located in the East Bay and stored in the Calaveras and San Antonio Reservoirs. The two local reservoirs hold rain, local runoff, and some Hetch Hetchy water.

## **IS OUR WATER FILTERED AND TREATED?**

The Hetch Hetchy reservoir water supply meets all federal and state requirements for watershed protection, disinfection treatment, bacteriological quality, and operational standards. As a result, the U.S. Environmental Protection Agency and the California Department of Health Services have granted the Hetch Hetchy water supply an exemption from filtration requirements. SFPUC monitors the Hetch Hetchy

watershed weather conditions, water turbidity levels, microbial contaminants, and aqueduct disinfection levels, and complies with reporting requirements. This enables SFPUC to maintain a filtration exemption for the Hetch Hetchy source.

That portion of the water that is stored locally in the Calaveras and San Antonio reservoirs, including stored Hetch Hetchy water, is treated and filtered. The Hayward Water System adds fluoride to all water that is delivered to its customers.

In 2000, the SFPUC prepared a Drinking Water Source Assessment and Protection Program. The SFPUC watersheds are vulnerable to contaminants associated with wildlife and, to a limited extent, human recreational activity. Historically, levels of contam-



inants have been very low in the watersheds. The full Drinking Water Source Assessment and Protection Program may be viewed at the Hayward City Hall, Department of Public Works.

## WHO SHOULD SEEK ADVICE ABOUT DRINKING WATER?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, as well as some elderly and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791) or at [www.epa.gov/safewater](http://www.epa.gov/safewater).

## HOW DO DRINKING WATER SOURCES BECOME POLLUTED?

Sources of drinking water (both tap water and bottled water) typically include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the California Department of Health Services prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

## PUBLIC PARTICIPATION

The Hayward City Council is the governing authority of the Hayward Water System. City Council meets at 8:00 p.m. on the first four Tuesday evenings of the month at the Hayward City Hall. The San Francisco Public Utilities Commission (SFPUC) is the governing authority of the wholesale water supplier to Hayward. The SFPUC meets on the second and fourth Tuesdays of the month at 1:30 p.m. at the San Francisco City Hall, Room 400. The public is invited to participate in these meetings.

## FOR MORE INFORMATION...

If you would like more information about Hetch Hetchy water or water quality monitoring, please contact the SFPUC Water Quality Bureau at 877-737-8297 or visit its website at [www.sfwater.org](http://www.sfwater.org). For information about the City of Hayward Water Distribution System or fluoridation of Hayward water, please call the City of Hayward at 510-583-4727 or visit [www.hayward-ca.gov](http://www.hayward-ca.gov).



### Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Ang ulat na ito ay naglalaman ng mahalagang impormasyon ukol sa iyong inuming tubig. Isalin-wika mo ito, o di kaya'y makipag-usap sa isang nakakaintindi nito.

Báo cáo này chứa đựng tin tức quan trọng về nước uống của quý vị. Xin phiên dịch ra, hay nói chuyện với người hiểu vấn đề này.

ਇਸ ਰਿਪੋਰਟ ਵਿੱਚ ਤੁਹਾਡੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਸੰਬੰਧੀ ਜ਼ਰੂਰੀ ਜਾਣਕਾਰੀ ਮੌਜੂਦ ਹੈ। ਇਸਦਾ ਅਨੁਵਾਦ ਕਰਾਓ ਜਾਂ ਇਸ ਬਾਰੇ ਉਸ ਵਿਅਕਤੀ ਨਾਲ ਗੱਲ ਕਰੋ ਜਿਹੜਾ ਇਸਨੂੰ ਸਮਝਦਾ ਹੋਵੇ।

इस रिपोर्ट में आपके पीने के पानी के बारे में महत्वपूर्ण जानकारी दी गई है। इसका अनुवाद करें, या जो कोई इसे समझते हैं उनसे बात करें।

## WATER QUALITY DATA

The tables below and on the following page provide important information about contaminants that were detected in the water in 2003. You may be unfamiliar with the terms and abbreviations, so here are some definitions to help you understand the water quality summary:

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

**Maximum Residual Disinfectant Level (MRDL):**  
The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**Maximum Residual Disinfectant Level Goal (MRDLG):**  
The level of a disinfectant added for water treatment below which there is no known or expected risk of health. MRDLGs are set by the U.S. EPA.

**Secondary Maximum Contaminant Level (SMCL):**  
Standards set by the U.S. EPA/State Department of Health Services to protect the odor, taste, and appearance of drinking water.

**Primary Drinking Water Standard:** MCLs for contaminants that affect health, along with their monitoring and reporting requirements, and water treatment requirements.

**Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Contaminants listed in the following tables were detected in 2003 drinking water samples. The tables contain the name of each substance, the highest level allowed by regulation (MCL), if applicable, the ideal goal for public health (PHG), if applicable, the amount detected, typical sources of the contamination, a key to the units of measurement, and notes to explain the findings. Laboratory staff analyzed the water samples for other contaminants. These contaminants, including MTBE, perchlorate, herbicides and pesticides, were not detected.

### PRIMARY DRINKING WATER STANDARDS

#### Mandatory Health-Related Standards

(See key and notes on next page)

DETECTED CONTAMINANTS	Unit	MCL	PHG (MCLG)	Range	Average (Maximum)	Typical Sources in Drinking Water
<b>TURBIDITY <sup>(1)</sup> (SFPUC Treated Water)</b>						
Unfiltered Hetch Hetchy Water	NTU	5 <sup>(2)</sup>	NS	0.24 - 0.74 <sup>(3)</sup>	(1.58) <sup>(4)</sup>	Soil Runoff
Filtered Water - Sunol Valley WTP	NTU	1	NS	-	(0.4)	Soil Runoff
Maximum turbidity minimum percentage of time <0.3 NTU <sup>(5)</sup>	%	95 <sup>(5)</sup>	NS	99% <sup>(6)</sup>	-	Soil Runoff
<b>ORGANIC CHEMICALS <sup>(7)</sup> (SFPUC Transmission System)</b>						
Total Trihalomethanes	ppb	80	NS	25.3 - 75.1	50.8	By-product of drinking water chlorination
Total Haloacetic Acids	ppb	60	NS	16.2 - 35.1	29	By-product of drinking water chlorination
Total Organic Carbon <sup>(8)</sup>	ppb	NS	NS	2.4 - 3.3	2.8	By-product of drinking water chlorination
<b>ORGANIC CHEMICALS (City of Hayward Tap Water)</b>						
Total Trihalomethanes	ppb	80	NS	4.4 - 128	79.3 <sup>(9)</sup>	By-product of drinking water chlorination
Total Haloacetic Acids	ppb	60	NS	8.7 - 50.2	26.1 <sup>(9)</sup>	By-product of drinking water chlorination
<b>MICROBIOLOGICAL (City of Hayward Tap Water)</b>						
Total Coliform	%	5 <sup>(10)</sup>	(0)	0 - 0.7 <sup>(11)</sup>	0.12 <sup>(11)</sup>	Naturally present in the environment
<b>INORGANIC CHEMICALS</b>						
Aluminum	ppb	1000	600	33 - 44	36.5	Erosion of natural deposits
Barium	ppb	1000	2000	<5 - 67	34	Erosion of natural deposits
Fluoride <sup>(12)</sup>	ppm	2	1	<0.1 - 0.2	0.1	Erosion of natural deposits
Nickel	ppb	100	12	<1 - 1	<1	Erosion of natural deposits
Nitrate (as NO <sub>3</sub> )	ppm	45	45	0.2 - 0.7	0.45	Erosion of natural deposits
<b>INORGANIC CHEMICALS (City of Hayward Tap Water)</b>						
Chlorine	ppm	MRDL=4	MRDLG=4	0.15 - 1.43	0.7	Drinking water disinfectant added for treatment
<b>LEAD AND COPPER RULE STUDY (City of Hayward Tap Water)</b>						
	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300 <sup>(13)</sup>	170	<2 - 120	10 <sup>(14)</sup>	Corrosion of household plumbing systems
Lead	ppb	15 <sup>(13)</sup>	2	<2 - 13	2.9 <sup>(14)</sup>	Corrosion of household plumbing systems

## SECONDARY MAXIMUM CONTAMINANT LEVELS

### Consumer Acceptance Limits

Detected Contaminant	Unit	SMCL	Range	Average	Typical Sources in Drinking Water:
Chloride	ppm	500	<3 - 22	8	Runoff/leaching from natural deposits
Color	unit	15	<5 - 6	<5	Naturally-occurring organic materials
Iron	ppb	300	<10 - 28	14	Leaching from natural deposits
Specific Conductance	µS/cm	1600	29-398	185	Substances that form ions when in water
Sulfate	ppm	500	1 - 43	22	Leaching from natural deposits
Total Dissolved Solids (TDS)	ppm	1000	20 - 180	100	Runoff/leaching from natural deposits
Turbidity	NTU	5	0.08 - 0.5	0.29	Soil runoff

## KEY TO UNITS OF MEASUREMENT

<b>NTU</b>	Nephelometric Turbidity Unit, which is a measurement of the clarity of water
<b>ppb</b>	Parts per billion (or micrograms per liter). This is equivalent to one penny in \$10,000,000.
<b>ppm</b>	Parts per million (or milligrams per liter). This is equivalent to one penny in \$10,000.
<b>NS</b>	No standard has been identified
<b>&lt;</b>	Less than the stated detection limit
<b>µS/cm</b>	MicroSiemens per centimeter

## OTHER WATER QUALITY PARAMETERS

Parameter	Unit	SMCL	Range	Average
Alkalinity (as CaCO <sub>3</sub> )	ppm	NS	10 - 156	67
Boron	ppb	1000	<100 - 150	<100
Calcium	ppm	NS	4 - 30	17
Fluoride - City of Hayward	ppm	NS	0.06 - 1.01	0.76
Hardness (as CaCO <sub>3</sub> )	ppm	NS	8 - 140	56
Magnesium	ppm	NS	<0.5 - 13	6.5
pH	unit	NS	7.5 - 9.8	9.1
Potassium	ppm	NS	<0.5 - 2	1
Silica	ppm	NS	5 - 7	6
Sodium	ppm	NS	3 - 27	15

## NOTES

- (1) Turbidity is the water clarity indicator; it also indicates the quality of the water and the treatment system efficiency.
- (2) The turbidity standard for unfiltered supplies is 5 NTU.
- (3) Results are based on monthly average turbidities measured at Tesla Portal.
- (4) Higher turbidities occurred in the Hetch Hetchy system but the water was not served to customers.
- (5) For filtered supplies, the following two turbidity standards apply: turbidity should be less than 0.3 NTU at least 95% of the time; and 1 NTU maximum.
- (6) The reported data is the percent of time that the filtered water had turbidity of less than 0.3 NTU.
- (7) California Department of Health Services has approved SFPUC's request for a waiver of 76 additional synthetic organic chemicals.
- (8) Total Organic Carbon is a precursor for disinfection byproducts formation. Data obtained from effluent monitoring at Sunol Valley WTP.
- (9) Compliance is based on 4-quarter running average from Disinfectant/Disinfection Byproducts Rule monitoring of Hayward tap water.
- (10) Percent of monthly samples that are positive
- (11) Percent of monthly samples that are positive in Hayward tap water.
- (12) Data are source water fluoride levels obtained from Hetch Hetchy, Calaveras and San Antonio Reservoirs.
- (13) The 90th percentile level of lead or copper must be less than the action level.
- (14) In 2002, 0 out of 53 sampled residences exceeded the Action Level at consumer taps. Lead and copper sampling is required every three years.

## CRYPTOSPORIDIUM AND GIARDIA

*Cryptosporidium* and *Giardia*, parasitic microbes found in most surface water supplies, can pose a potential health threat. If swallowed, either may produce symptoms of diarrhea, stomach cramps, upset stomach, and slight fever. Some people, including those with compromised immune systems, are more vulnerable to *Cryptosporidium* and *Giardia* than others and should seek advice about drinking water from their health care providers. The SFPUC tests regularly for *Cryptosporidium* and *Giardia* in both source and treated water supplies. In 2003, very low levels of *Cryptosporidium* and *Giardia* were detected in treated water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, including *Cryptosporidium* and *Giardia*. The presence of small amounts of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the U.S. EPA Safe Drinking Water Hotline at (800) 426-4791.

## LEAD IN YOUR DRINKING WATER

In 2002, the City of Hayward tested for lead in the tap water of 53 residences. All samples were below the Action Level of 15 parts per billion. Lead sampling is required every three years.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your water, you may wish to have your water tested. You can also let water run through the faucet for 30 seconds to 2 minutes before using the water and always use cold water for cooking to reduce lead concentrations. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791.

## MAKING GREAT WATER BETTER - CHLORAMINE DISINFECTION

In February 2004, the San Francisco Public Utilities Commission (SFPUC) successfully implemented a system-wide change from chlorine to chloramine disinfection for drinking water.

Chloraminated water is safe for people and animals to drink and for all other general uses. However, chloraminated water can harm fish and amphibians as chloramine passes through their gills and directly enters the bloodstream. To protect fish and amphibians, chloramine must be removed from the water with water treatment products that are readily available at pet and aquarium supply businesses. Be sure to follow product label instructions to completely remove chloramine. Unlike chlorine, chloramine cannot be removed by boiling or letting an open container of water stand to dissipate.



For more information about chloramine, visit the information website at [better.sfwater.org](http://better.sfwater.org) or call the City of Hayward at (510) 583-4700.